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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,411	05/11/2005	Michio Tsuyumoto	3273-0202PUS1	4477
2292 7590 06/09/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER DESAL, ANISH P				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/534,411

Applicant(s)

TSUYUMOTO ET AL.

Examiner

ANISH DESAI

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's arguments in response to the Office action dated 12/04/07 have been fully considered.
2. Claims 1-9 are pending. Claims 6-9 are new claims. Claims 1-3 are withdrawn. Support for the newly amended claims 4-9 is found in the specification.
3. The 35 USC Section 102(b) or 103(a) rejection based on Shigeru et al. (JP 2002-086476) are withdrawn in view of the present amendment and response. Shigeru does not teach or suggest Gurley permeability of the porous film as presently claimed. However, upon further consideration a new 35 USC Section 102(a) based on Michio (JP 2003-313356-Machine translation provided by the Examiner) is made.
4. A new 35 USC Section 112-second paragraph rejection is made in view of the present amendment.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. The presently amended claims recite Gurley permeability without setting forth differences in the pore size and porosity inside the film and at the surface of the film which renders claims vague and indefinite. This is not in line with *Ex parte Slob*,

157 USPQ 172 which holds that it seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete. It is noted that the claim language is broad enough to read on the homogeneous structure of the porous film of previously applied reference of Shigeru et al. (JP 2002-086476). However, the porous film of the Shigeru does not meet Gurley permeability of the presently claimed invention. Accordingly, absence of differences in the pore size and porosity inside the film and at the surface of the film which enables the film to achieve the desired Gurley number renders the claims indefinite. For example, the claim limitation of ratio A/B , C/D , A^1/A^2 , and C^1/C^2 as claimed by Applicant includes 1, which means that that a homogeneous porous film with respect to porosity and pore size is contemplated by the presently claimed invention. As previously noted in Section 5 of 12/04/07 Office Action, Shigeru reference discloses a porous membrane (film) having homogenous thickness, pore diameter, porosity, and pore shape (0041 page 30, 0001 page 5 to 0001 page 6, 0005 page 7 to 0005 page 8). Moreover, the polymer component forming the membrane (film) of Shigeru is formed of polymers such as cellulose acetate, polysulfones, and polyimides polymers (0003 page 7), which reads on Applicant's claimed polymer component. Additionally, the pore size of 0.01 to 10 micrometers and porosity of 15 to 85% of Shigeru's porous film (0041 page 30) meet Applicant's pore size and porosity values. However, the Gurley permeability values of the porous film of Shigeru are outside Applicant's claimed Gurley permeability. Thus, in accordance with *Ex parte Slob*, 157 USPQ 172, it appears that Applicant's claim is incomplete and it raises issue of indefiniteness.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4-9 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Michio (JP 2003-313356-Machine translation provided by the Examiner).
8. Michio discloses a porous film comprising amide-imide polymer having Gurley permeability as claimed by Applicant's invention (see abstract and 0012). Further, Michio's porous film has pore size of 0.01 to 10 micrometers, 30-80% porosity, and thickness of 5 to 200 microns (abstract and 0009). It is noted that the ratio of A/B , C/D , A^1/A^2 , and C^1/C^2 as claimed by Applicant includes 1, which means that that a homogeneous porous film with respect to porosity and pore size is contemplated by the presently claimed invention. Thus, a homogenous porous film (i.e. pore size of 0.01 to

10 micrometers and porosity of 30-80%) as disclosed above by Michio reads on Applicant's claimed invention. Accordingly, Michio anticipates claimed invention.

9. Claims 4-9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Patel et al. (US 2001/0023014A1).

10. Patel discloses a microporous film (abstract) containing microscopic pores and voids wherein the pores and voids normally connect with each other and with at least one surface of the film (a large number of continuous micropores) (abstract and 0002). The microporous film of Patel includes polymer component such as acrylics (0073). As set forth previously the ratio of A/B , C/D , A^1/A^2 , and C^1/C^2 as claimed by Applicant includes 1, which means that that a homogeneous porous film with respect to porosity and pore size is contemplated by the presently claimed invention. Patel discloses that "The microporous organic polymer film preferably has thickness in the range 5 to 100 μm , most preferably about 20 to 80 μm , and has a porosity in the range of 30 to 80% by volume, most preferably from 50 to 70% by volume. The average pore size is preferably in the range 0.2 to 2.0 μm " (0072). This disclosure of Patel meets the claim requirement of ratio of A/B , C/D , A^1/A^2 , and C^1/C^2 of 1.

11. The difference between the claimed invention and the prior art of Patel is that Patel is silent as to teaching Gurley permeability as claimed in claims 5-9, however it is reasonable to presume that the Gurley permeability is present in the invention of Patel. The support for said presumption is based on the fact that the porous films of Patel and that of Applicant as set forth above are structurally and compositionally similar. Thus,

the presently claimed property of Gurley permeability would be present. The burden is shifted to Applicant to prove it otherwise (*In re Fitzgerald*, 205 USPQ 594). In addition, the presently claimed properties would obviously have been present once the invention of Patel is provided (see *In re Best*, 195 USPQ at 433, footnote 4 CCPA 1977).

12. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masayuki et al. (JP 2000-306568-Machine translation provided by the Examiner).

13. Masayuki discloses a porous film having plurality of fine through holes, wherein the porous film of Masayuki is formed of polyimide (abstract and 0012). As set forth previously the ratio of A/B , C/D , A^1/A^2 , and C^1/C^2 as claimed by Applicant includes 1, which means that that a homogeneous porous film with respect to porosity and pore size is contemplated by the presently claimed invention. It is noted that thickness, void content, and average pore size of Masayuki's porous film are 5 to 100 micrometers, 30 to 85%, and 0.01 to 5 micrometer respectively (abstract).

14. It is noted that the presently claimed invention requires Gurley permeability of from 0.2 to 29 seconds per 100 cc, while Masayuki discloses air permeability (believed to be Gurley permeability) of 30 seconds per 100 cc. However, it is the Examiner's position that the porous film of Masayuki appears to be identical in terms of structure and composition to that of Applicant's claimed porous film, and the porous films of Masayuki and that of Applicant have same utility, e.g. cell separator (see page 1 of specification of the presently claimed invention and 0001 of Masayuki), thus it would have been obvious to optimize Gurley permeability in order to arrive at the Gurley

permeability value of the presently claimed invention, because doing so would involve routine skill in the art.

Response to Arguments

15. Applicant's arguments with respect to claims 4 and 5 have been considered but they are moot in view of the new ground(s) of rejection.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kimio (JP 2003-026849) discloses porous polyimide film.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

18. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./

Examiner, Art Unit 1794

/Hai Vo/

Primary Examiner, Art Unit 1794